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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/684,825  | 10/15/2003  | Esa Tiirola          | 60091.00242         | 9871             |
| 32294   | 7590        | 03/21/2007           | EXAMINER            |                  |
| SQUIRE, SANDERS & DEMPSEY L.L.P.<br>14TH FLOOR<br>8000 TOWERS CRESCENT<br>TYSONS CORNER, VA 22182 |             |                      | VUONG, QUOCHIEN B   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2618                |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE  | MAIL DATE   | DELIVERY MODE        |                     |                  |
| 3 MONTHS  | 03/21/2007  | PAPER                |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/684,825             | TIIROLA ET AL.      |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Quochien B. Vuong      | 2618                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 October 2003.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-11 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 15 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 12/01/2004 and 10/06/2006 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

***Claim Objections***

3. Claim 11 is objected to because of the following informalities: line4, the word "c6communicating" is misspelled and should be "communicating". Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 2, 4-7, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Chen et al. (US 6,101,168).

Regarding claims 1, 6, and 11, AAPA discloses in the background of the invention a communication method and arrangement in a Code Division Multiple Access radio system using a transmission power control based on a Signal Interference Ratio measurement, the method comprising: communicating between at least two transceivers of a radio system using a packet switched connection through a radio interface; measuring a quality of the packet switched connection; adjusting a target Signal Interference Ratio based on the quality measured; transmitting, from a transceiver receiving packets, a request to retransmit at least one packet having a failed reception; retransmitting, from a transceiver transmitting packets, at least one retransmission packet requested as a response to the request (paragraphs [0003] – [0007]. The AAPA does not disclose controlling a transmission power by setting a lower target SIR for retransmission of a retransmission packet than the target Signal Interference Ratio for a first transmission of a corresponding packet. However, Chen et al. disclose controlling a transmission power by setting a lower target SIR for retransmission of a retransmission packet than the target Signal Interference Ratio for a first transmission of a corresponding packet (see abstract). Therefore, it would have been obvious for one having ordinary skill at the time the invention was made to adapt the teaching of Chen et al. to the AAPA method in order to maximize the capacity as suggested by Chen et al. (see abstract).

Regarding claims 2 and 7, the combination of AAPA and Chen et al. disclose the method and arrangement of claims 1 and 6 above, respectively; in addition, if not inherent would be obvious to include defining a specific target Signal Interference Ratio for at least one retransmission of the retransmission packet in order to set a transmission power for retransmitting the packet.

Regarding claims 4 and 9, the combination of AAPA and Chen et al. disclose the method and arrangement of claims 1 and 6 above, respectively; in addition, if not inherent it would be obvious for the method and arrangement to comprise transmitting, from the transceiver receiving packets, a transmission strength at which to retransmit the at least one packet having the failed reception in order to perform closed loop power control and setting the transmission power for the retransmitting packet.

Regarding claims 5 and 10, the combination of AAPA and Chen et al. disclose the method and arrangement of claims 1 and 6 above, respectively; in addition, if not inherent it would be obvious for the method and arrangement to comprise setting the lower target Signal Interference Ratio according the  $\text{Target\_SIR}(N^{\text{th}}) = \text{Target\_SIR}(\text{master}) - \text{Step}(N^{\text{th}})[\text{dB}]$ , where  $\text{Target\_SIR}(N^{\text{th}})$  denotes the SIR of an  $N^{\text{th}}$  retransmission of a packet,  $\text{Target\_SIR}(\text{master})$  denotes the target SIR of the first transmission of a packet,  $\text{Step}(N^{\text{th}})$  denotes an amount by which to decrease the transmission power of the retransmission, and  $N$  is an ordinal number denoting an index of retransmission since the retransmission power must be less than the first transmission power by a certain amount.

6. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Chen et al. and further in view of Kumar et al. (US 6,507,572).

Regarding claims 5 and 10, the combination of AAPA and Chen et al. disclose the method and arrangement of claims 1 and 6 above, respectively. AAPA and Chen et al. do not disclose setting a lower target Signal Interference Ratio for a dedicated control channel between transmissions of packets than during transmissions of the packets. However, Kumar et al. disclose setting a lower target Signal Interference Ratio for a dedicated control channel between transmissions of packets than during transmissions of the packets. Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the teaching of Kumar et al. to the method and arrangement of AAPA and Chen et al. in order to reduce the transmission power since the dedicated control channel at that time only used for signaling not carrying data message.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Raitola et al. (US 6,289,003) disclose a method for transmitting packet switched data in a mobile communications system.

Watanabe (US 6,317,854) discloses apparatus and associated method for selecting retransmission of packet data.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



QUOCHIEN B. VUONG  
PRIMARY EXAMINER

Quochien B. Vuong  
Mar. 19, 2007.